

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

1/3



ovary
liver
muscle
testis
spleen
intestine
pancreas
seminal vesicle
kidney
brain
thymus
lung
heart

FIG. 1

09361655-072799

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

2/3

```

1  CGGGCCAGGAGGAGGACCCCCACCTGTGAGCCTGCGACCCCCCTTATGTTGCAGGCGAGAC 60
   R A R R R T P T C E P A T P L C C R R D
61  CATTACGTAGACTTCCAGGAAGTGGGATGGCGGGACTGGATACTGCAGCCCGAGGGGTAC 120
   H Y V D F Q E L G W R D W I L Q P E G Y
121 CAGCTGAATTACTGCAGTGGGCAGTGGCCTCCCCACCTGGCTGGCAGCCCAGGCATTCCT 180
   Q L N Y C S G Q C P P H L A G S P G I A
181 GCCTCTTTCCATTCCTGCCGTCTTCAGCCTCCTCAAAGCCAACAATCCTTGGCCTGCCAGT 240
   A S F H S A V F S L L K A N N P W P A S
241 ACCTCCTGTTGTGTCCCTACTGCCCCGAAGGCCCCCTCTCTCTCCTCTACCTGGATCATAAT 300
   T S C C V P T A R R P L S L L Y L D H N
301 GGCAATGTGGTCAAGACGGATGTGCCAGATATGGTGGTGGAGGCCTGTGGCTGCAGCTAG 360
   G N V V K T D V P D M V V E A C G C S *

```

FIG. 2

<u>Family member</u>	<u>% identity with GDF-12</u>
GDF-1	43
GDF-3	36
GDF-5	36
GDF-6	39
GDF-7	42
GDF-9	30
BMP-3	37
BMP-2	43
BMP-4	42
Vgr-1	41
OP-1	40
BMP-5	38
OP-2	39
MIS	30
Inhibin-α	27
Inhibin-βA	47
Inhibin-βB	50
Nodal	38
GDNF	21
TGF-β1	36
TGF-β2	36
TGF-β3	41

FIG. 4

09361655.072799

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
CRAFTSMAN		

1 GAGCTGTGAGGGTCAAGCACAGCTATCCATCAGATGATCTACTTTTCAGCCTTCCTGAGTC 60 3/3
61 CCAGACAATAGAAGACAGGTGGCTGTACCCCTTGGCCAAGGGTAGGTGTGGCAGTGGTGTTC 120
121 TGCTGTCTACTGTGCCCTCATTGGCCCCCAGCAATCAGACTCAACAGACGGAGCAACTGCC 180
181 ATCCGAGGCTCCTGAACCAGGGCCATTACACAGGAGCATGCGGCTCCCTGATGTCCAGCT 240
M R L P D V Q L
241 CTGGCTGGTGTCTGTGTGGGCACTGGTGGCAGCACAGGGGACAGGGTCTGTGTGTCCCTC 300
W L V L L W A L V R A Q G T G S V C P S
301 CTGTGGGGGCTCCAAACTGGCACCCCAAGCAGAACGAGCTCTGGTGTCTGGAGCTAGCCAA 360
C G G S K L A P Q A E R A L V L E L A K
361 GCAGCAAATCCTGGATGGGTGACCTGACCAGTCGTCCAGAAATAACTCATCTCCACC 420
Q Q I L D G L H L T S R P R I T H P P P
421 CCAGGACGGCTGACCAGAGCCCTCCGGAGACTACAGCCAGGAGTGTGGCTCCAGGGAA 480
Q A A L T R A L R R L Q P G S V A P G N
481 TGGGGAGGAGGTTCATCAGCTTTGCTACTGTACAGACTCCACTTCAGCCTACAGCTCCCT 540
G E E V I S F A T V T D S T S A Y S S L
541 GCTCACTTTTCACCTGTCCACTCCTCGGTCCACCACCTGTACCATGCCCCGCTGTGGCT 600
L T F H L S T P R S H H L Y H A R L W L
601 GCACGTGTCTCCCCACCCTTCCTGGCACTCTTTGCTTGAGGATCTTCCGATGGGGACCAAG 660
H V L P T L P G T L C L R I F R W G P R
661 GAGGAGGCGCAAGGGTCCCGCACTCTCTCGGTGAGCACCACATCACCAACCTGGGGCTG 720
R R R Q G S R T L L A E H H I T N L G W
721 GCATACCTTAACCTGCGCTCTAGTGGCTTGAGGGGTGAGAAGTCTGGTGTCTGAAACT 780
H T L T L P S S G L R G E K S G V L K L
781 GCAACTAGACTGCAGACCCCTAGAAGGCAACAGCACAGTTACTGGACAACCGAGGCGGCT 840
Q L D C R P L E G N S T V T G Q P R R L
841 CTTGGACACAGCAGGACACCAGCAGCCCTTCCTAGAGCTTAAGATCCGAGCCAATGAGCC 900
L D T A G H Q Q P F L E L K I R A N E P
901 TGGAGCAGGCGCGGCGCAGGAGGAGGACCCCCACCTGTGAGCCTGCGACCCCTTATGTTG 960
G A G E A R R R R T P T C E P A T P L C C
961 CAGGCGAGACCATTAAGTAGACTTCCAGGAACCTGGGATGGCGGGACTGGATACTGCAGCC 1020
R R D H Y V D F Q E L G W R D W I L Q P
1021 CGAGGGGTACCAGCTGAATTACTGCAGTGGGCACTGCCCTCCCCACCTGGCTGGCAGCCC 1080
E G Y Q L N Y C S G Q C P P H L A G S P
1081 AGGCATTGCTGCCTCTTTCCATTCTGCGCTCTTCAGCCTCCTCAAAGCCAACAATCCTTG 1140
G I A A S F H S A V F S L L K A N N P W
1141 GCCTGCCAGTACCTCCTGTGTGTCCCTACTGCCCGAAGGCCCCCTCTCTCCTCTACCT 1200
P A S T S C C V P T A R R P L S L L Y L
1201 GGATCATAATGGCAATGTGGTCAAGACGGATGTGCCAGATATGGTGGTGGAGGCCTGTGG 1260
D H N G N V V K T D V P D M V V E A C G
1261 CTGCAGCTAGCAAGAGGACCTGGGGCTTTGGAGTGAAGAGACCAAGATGAAGTTTCCAG 1320
C S *
1321 GCACAGGGCATCTGTGACTGGAGGCATCAGATTCTCTGATCCACACCCCAACCCAACAACC 1380
1381 ACCTGGCAATATGACTCACTTGACCCCTATGGGACCCAAATGGGCACTTTCTTGTCTGAG 1440
1441 ACTCTGGCTTATTCCAGGTTGGCTGATGTGTGGGAGATGGGTAAAGCGTTTCTTTCTAAA 1500
1501 GGGGTCTACCCAGAAAGCATGATTTCTGCCCTAAGTCCTGTGAGAAGATGTGAGGGACT 1560
1561 AGGGAGGGAGGGAGGGAAGGCAGAGAAAAATTACTTAGCCTCTCCCAAGATGAGAAAGTC 1620
1621 CTCAAGTGAGGGGAGGAGGAAGCAGATAGATGGTCCAGCAGGCTTGAAGCAGGGTAAGCA 1680
1681 GGCTGGCCCAGGTAAGGGCTGTGAGGTACCTTAAGGGAAGGTCAAGAGGGAGATGGGC 1740
1741 AAGGCGCTGAGGGAGGATGCTTAGGGGACCCCAAGAAACAGGAGTCAGGAAAATGAGGCA 1800
1801 CTAAGCCTAAGAAGTTCCCTGGTTTTTCCAGGGGACAGGACCCACTGGGAGACAAGCAT 1860
1861 TTATACTTTCTTTCTTTCTTTTATTTTTTTGAGATCGAGTCTCGCTCTGTCCAGGCT 1920
1921 GGAGTGCAGTGACACGATCTTGGCTCACTGCAACCTCCGTCTCTGGGTTCAAGTGATTC 1980
1981 TTCTGCCCTCAGCCTCCCGAGCAGCTGGGATTACAGGCGCCCACTAATTTTGTATTCTTA 2040
2041 GTAGAAACGAGGTTTCAACATGTGGCCAGGATGGTCTCAATCTCTTGACCTCTTGATCC 2100
2101 ACCCGACTTGGCCTCCCGAAGTGATGAGATTATAGGCGTGAGCCACCGCGCTGGCTTAT 2160
2161 ACTTTCTTAATAAAAAGGAGAAAGAAAATCAACAAATGTGAGTCATAAAGAAGGGTTAGG 2220
2221 GTGATGGTCCAGAGCAACAGTTCTTCAAGTGACTCTGTAGGCTTCTGGGAGGTCCCTTT 2280
2281 TCAGGGGTGTCCACAAAGTCAAAGCTATTTTCATAATAATACTAACATGTTATTTGCCTT 2340
2341 TTGAATTCCTATTATCTTAAAATTGTATTGTGGAGTTTTCCAGAGGCGGTGTGACATGTG 2400
2401 ATTACATCATCTTTCTGAC 2419

FIG. 3

09361655-072799